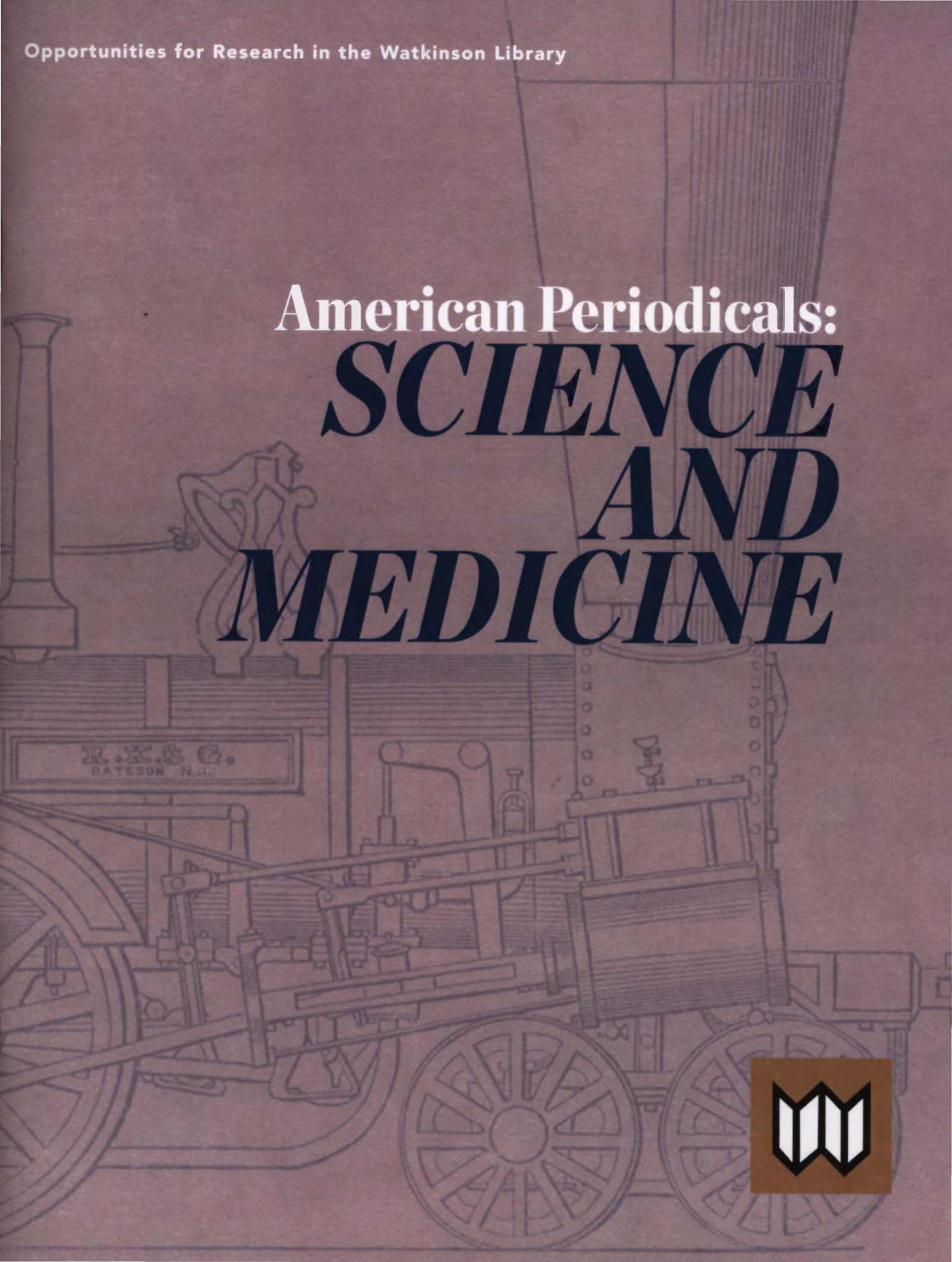
11-1-2016

American Periodicals: Science and Medicine (Opportunities for Research in the Watkinson Library)

Leonard Banco

Opportunities for Research in the Watkinson Library

American Periodicals: *SCIENCE AND MEDICINE*



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Entomologist

VOL. 2. ST. LOUIS, MO., DECE

Entomological Department.

CHARLES V. RILEY, EDITOR,
Room 29, Insurance Building, St. Louis, Mo.

INSECTS

THE YEAR'S INTERMISSION.

We have been highly pleased at the numerous gratulatory letters which have come to hand since our last number was sent out. General regret is expressed, and some few of our subscribers express the fear that the publication of

Series Introduction

A traditional focus of collecting in the Watkinson since we opened on August 28, 1866, has been American periodicals, and we have quite a good representation of them from the late 18th to the early 20th centuries. However, in terms of "discoverability" (to use the current term), it is not enough to represent each of the 600-plus titles in the online catalog. We hope that our students, faculty, and other researchers will appreciate this series of annotated guides to our periodicals, broken down into basic themes (politics, music, science and medicine, children, education, women, etc.) and **listed in chronological order by date of the title's first issue**. All of these guides have been compiled by Watkinson Trustee and volunteer Dr. Leonard Banco. We extend our deep thanks to Len for the hundreds of hours he has devoted to this project since the spring of 2014. His breadth of knowledge about the period and inquisitive nature has made it possible for us to promote a unique resource through this work, which has already been of great use to visiting scholars and Trinity classes. Students and faculty keen for projects will take note of the possibilities!

Richard J. Ring
Head Curator and Librarian

SCIENCE AND MEDICINE

Introduction

The *Medical Repository* in 1818 reported that "The United States is peculiarly the land for physicians. Medicine is cherished here more, it would seem, than in any part of the world ... the poorest and lowest mechanics among us will in ordinary parlance remind you of their family physicians." The Watkinson collection of 41 journals of science, technology, and medicine (14 of which are complete) runs the gamut from those written by and for members of the medical and scientific communities to those written for the enlightenment and amusement of the general public. Self-help medical journals were a 19th-century staple, and the various branches of medical practice (allopathy, chiropractic, homeopathy, osteopathy, and what would now be called naturopathy) are all represented. The late 19th century enthusiasm for amateur microscopy and the rapidly emerging fields of bacteriology and public health are present in our collection as well. The 19th-century explosion of invention and patents is addressed in a number of our holdings. We are very fortunate to have early runs of such seminal journals as the first 17 volumes of the *New England Journal of Medicine and Surgery* (first published in 1812) and the first 92 volumes of the *American Journal of Science* (beginning in 1818) as well as fascinating obscure periodicals with much shorter runs.

Leonard Banco, M.D.
Trustee of the Watkinson Library

Memoirs of the American Academy of Arts and Sciences

Boston/Cambridge v.1 (1783) – v.4 (1821); n.s. v.1 (1883) – v.11 (1888); n.s. v.13 (1908) – v. 19 (1946) Published sporadically

he American Academy of Arts and Sciences was established by the Massachusetts legislature in 1780 and counts Samuel and John Adams, John Hancock and James Bowdoin among its founders. Many eminent American scientists and intellectuals have been members over the years. The Memoirs were published beginning in 1783 as a repository of Academy business, and more importantly, for scientific papers presented before the group. Early contributions focused on natural phenomena, such as meteorology, earthquakes, volcanoes and geology. Mathematical papers were both theoretical and practical, many regarding global position and eclipses. Early medical observations, such as those on cases of gunshot wounds and tumors, also appeared. All of the articles were attributed. The Memoirs were published irregularly over the years; the 1882 Centennial volume contained remarks and poems by Oliver Wendell Holmes and remarks by Asa Gray. There is also a lengthy but fascinating paper on "The Tortugas and Florida Reefs" by Alexander Agassiz accompanied by a large, chromolithographic fold-out geologic map of the area, and many other black and white maps. This was before the Florida Keys were linked by railroad or highway. This volume also includes an article on "Stellar Photography" by Edward C. Pickering accompanied by a catalogue of polar stars. The Academy continues as an active organization, although the Memoirs have been superseded by other publications.

American Philosophical Society Transactions

Philadelphia (vol. 1, 1789–vol. 2 (new series), 1825)

The society was founded by Benjamin Franklin in 1743, and in 1780, Pennsylvania granted it a charter guaranteeing that the APS might correspond with learned individuals and institutions "of any nation or country" on its legitimate business at all times "whether in peace or war." *APS Transactions* is now the oldest scholarly journal in America with a continuous history. With one of his telescopes erected on a platform behind the Pennsylvania State House (now Independence Hall), David Rittenhouse plotted the Transit of Venus, thus attracting the recognition of the scholarly world. The report of Rittenhouse's observations accompanied by foldout engravings, first read before the society on March 21, 1769, became the first set of papers, published in volume I of the *Transactions* in 1771 (and republished in 1789). Topics of other reports include agriculture (viniculture, expressing oil from various seeds, foreign plants that might be brought to America), the eruption of Mount Vesuvius, the aurora borealis, and machines for pumping out vessels at sea, as well as medical topics.

Philadelphia Medical and Physical Journal

Philadelphia (vol. 1, 1804–vol. 3, 1808; complete)

Founded and edited by Benjamin Smith Barton, the prominent American botanist and physician who also wrote many of the articles, much of this journal is filled with historical accounts of various epidemics of times past. There is a fascinating synopsis of Bartram's account of epidemics in Pennsylvania and New Jersey in the years 1746–49. "The fall of this year is the most sickly that ever was known, since the Europeans settled here. Scarcely a family has escaped in the country." Also, there are vivid accounts of fevers in Norfolk, Virginia, and bilious fever in Virginia. One article on the treatment of yellow fever in St. Thomas reflected the sometimes futile state of effective therapy in that era, stating, "Every mode of practice I adopted was attended with equal success, or should I rather say, was followed with equal disappointment. I lost one out of three, or two out of five of all my patients." In general, the attempts at therapy documented in the journal were through trial and error. There also were articles about medical botany. The second volume includes a peculiar appendix in French concerning the discovery and extraction of a parasitic twin first thought to be a tumor. Strangely, the journal also published articles of general interest, such as a description of Niagara Falls, earthquakes, and travels of a member of the Mohawk tribe.

Medical and Agricultural Register

Boston (1806–1807)

The editor's stated goal was to provide "practical information on husbandry; cautions and directions for the preservation of health, management of the sick, etc., designed for use of families." Considerable information on agricultural topics including beekeeping, butter, cabbage, carrots, cider, corn, potatoes, peaches, pork, beer, wine, and pickling. There is an interesting engraving depicting a "Moral & Physical Thermometer: Or, A Scale of the Progress of Temperance & Intemperance." Contents include research and information on both medical and agricultural matters, like "Natural History of the Horse-Bee" by Rowland Green; meteorological observations for various locations; and "Case of Recovery from apparent Consumption" by Eliphalet Lyman. The magazine includes the first American scientific account of meningitis. One of the most unusual articles is an early description of attempted resuscitation, "Directions for recovering persons who are supposed to be dead, from drowning." In an early attempt to collect and share vital statistics, the magazine recognized the need to collect accurate mortality and morbidity records for each town and asked that the minister of each town collect a "correct and as far as possible, complete bill of mortality for the state (of Massachusetts)." Data was to include number of patients, age, sex, diseases, prevailing epidemics, and their progress and decline. In the end, only 20 town ministers participated, to the stated disappointment of the editor. The magazine published bills of mortality for Mason, New Hampshire, 1798–1805; Concord, Massachusetts, 1779–1805; Portsmouth, New Hampshire, 1801–1805; and Shrewsbury, Massachusetts, 1805.

Eclectic Repertory and Analytical Review, Medical and Philosophical

Philadelphia (vol. 1, 1810–vol. 10, 1820)

Edited by a society of physicians, much of the material in the magazine was reprinted from European journals; however, it also contained important original American material as well. The journal published articles by Edward Jenner on fetal transmission of smallpox and distemper in dogs. There is a fascinating full-length article on the pros and cons of vaccination, very much relevant to the struggle with present-day anti-vaccine advocates. The description of Dr. Dorsey's successful ligation (or binding) of the external iliac artery that he performed on August 15, 1811, was a first for an American physician. Three cases of extirpation of the ovary performed in 1809 were reported by American surgical pioneer Ephraim McDowell. Although not the first to perform this operation, he deserves credit for making it a more routine procedure. Other articles include Philip Syng Physick's "Account of a New Mode of Extracting Poisonous Substances from the Stomach," electrochemical research by Sir Humphry Davy with engravings of his apparatus, John Cheyne on the larynx and bronchi, and articles on aortic aneurism and detection of arsenic. There also are case reports on diverse topics accompanied by discussion.

Emporium of Arts and Sciences

Philadelphia (1812–1814)

The first two volumes were edited and published by John Redman Coxe, a prominent Philadelphia physician, author, and professor of chemistry and pharmacy at the University of Pennsylvania. Issues contain numerous descriptions of travels, new technologies, experiments, patents, and recipes, including a lengthy series on "Injurious Manufactures," memoirs "upon the Vineyards and Wines of Champagne in France," "Experiments on the Composition of the Swedish Stone Paper," "Account of the Method of Making Stilton Cheese," "An Account of a New Method of increasing the charging Capacities of Coated Electrical Jars," "On Chemical Printing, and particularly on the Progress of this Art in Germany" [i.e., lithography], "Some Account of a Journey to the Frozen Sea, and of the Discovery of the Remains of a Mammoth," and other articles by various authors. The engraved plates include diagrams of Coxe's revolving telegraph, a camera lucida, and instruments for drawing in perspective. The new series was edited by Thomas Cooper, an Anglo-American economist, college president, and political philosopher. Cooper was described by Thomas Jefferson as one of the ablest men in America and by John Adams as a "learned ingenious scientific and talented madcap," however it was during Adams's administration in 1799 that Cooper was tried and convicted under the Sedition Act. Dumas Malone stated that modern scientific progress would have been impossible without the freedom of the mind that he [Cooper] championed throughout life. His ideas were taken very seriously in his own time, and there were substantial reviews of his own writings. Journal content has headings for bricks, starch, manures, bleaching, a hydrostatic engine, political economy, and considerable material on metallurgy, including copper, brass, lead, tin, iron, and colored flames, accompanied by plates of bleaching, a hydrostatic engine, smelting of lead, a boiler at the Philadelphia water works, and seltzer water.

The Deaths preceding were caused by Diseases and Casualties as follows, viz.

Abscesses	1	Hernia, or Rupture	6
Aneurism	1	Jaundice	10
Apoplexy	13	Inflammation of the bowels	1
Burns or Scalds	6	——— of the stomach	1
Cancer	5	Killed by lightning	1
Casualties	15	Insanity	1
Childbed	14	Intemperance	2
Cholera Morbus	6	Locked jaw	2
Colic	2	Mortification	11
Consumption	231	Old Age	26
Convulsions	36	Palsy	12
Cramp in the stomach	2	Pleurisy	8
Croup	1	Quinsy	15
Debility	28	Rheumatism	1
Decay	20	Rupture of blood vessels	1
Diarrhœa	15	Small-Pox, (at Rainsford's Island)	2
Drinking cold water	2	Sore throat	1
Dropsy	21	Spasms	2
——— in the head	23	Stillborn	49
Drowned	13	Suicide	1
Dysentery	14	Sudden death	25
Dispepsia or Indigestion	15	Syphilis	12
Fever, bilious	7	Teething	15
——— pulmonic	46	Worms	11
——— inflammatory	24	Whooping Cough	14
——— putrid	6	White swelling	2
——— typhus	33	Diseases not mentioned	48
Flux infantile	57		
Gout	3	Total,	942

New England Journal of Medicine and Surgery

Boston (vol. 1, 1812–vol. 16, 1827)

Still published, this journal was and is one of the most important and influential medical journals in the world. Right from the first edition, it included rigorous scientific articles by important members of the Boston medical community, some of whom became founders of Massachusetts General Hospital. In "Remarks on Angina Pectoris," John Warren observed "ossification of the coronary arteries" but incorrectly judged them "not the cause" of angina. He took a more functional approach, determining that the true cause is "the incapacity of the heart to empty itself of blood sufficiently fast to maintain the vital functions." This latter description is now considered to be the definition of shock due to congestive heart failure. James Jackson ascribed a multitude of pediatric maladies to "teething," most of which involved gastroenterologic symptoms and occurred in the summer. Other articles concerned various diseases and their postmortem findings, various infectious diseases, and injuries by fire and heated substances (burns). The magazine also reprinted excerpts from other American as well as British and French publications. Overall, this journal always took a scientific approach to disease and medical practice, even if in the early days the science led to conclusions that were ultimately proven incorrect.

Transactions of the Literary and Philosophical Society of New York

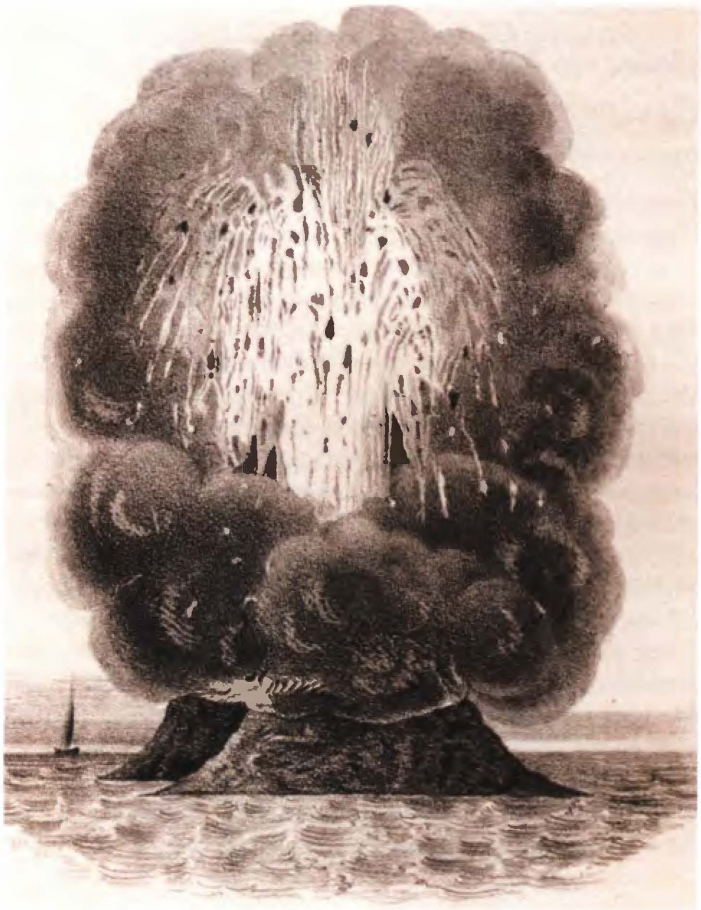
New York (1815)

This journal published papers presented before the society that were "worthy of presentation in a printed form." They included material on various aspects of natural science and medicine. The committee of publication included Dr. Hugh Williamson, Dr. David Hosack, and John Pintard. The introductory discourse was provided by DeWitt Clinton, and other papers include "Of Comets" by Williamson, "Observations on the Laws Governing the Communication of Contagious Diseases" by Hosack, "Detailed Narrative of Earthquakes" and "Fishes of New York" (both by Samuel L. Mitchell), and "Cases of Morbid Anatomy" by John W. Francis.

Academy of Natural Sciences of Philadelphia [Journal and Proceedings]

Philadelphia (1817; vol. 1, 1841–vol. 70, 1918; issues lacking)

The Academy of Natural Sciences in Philadelphia is the oldest natural history society and museum in North America. It was founded in 1812 "for the encouragement and cultivation of the sciences, and the advancement of useful learning" by William Bartram, Charles Alexandre Lesueur, William McClure, Titian Peale, Thomas Say, Alexander Wilson, and other leading zoologists, botanists, and general naturalists of early 19th-century America. The *Journal* was issued to discuss the results of meetings "at leisure hours" on natural science and to share observations that would be of interest to others. It was written in an informal style (for 1817) with descriptions of mollusca, Rocky Mountain sheep, and new species of sea shells and insects accompanied by engravings. By 1841, the Proceedings were much more structured with sections on mineralogy and geology, zoology, botany, and physical science. Each issue contained minutes of meetings as well as descriptions of donations of specimens and other material describing newly found fossils, new species of quadrupeds in North America with descriptions by Audubon and Bachman, and considerable information on geology. Among the authors in addition to Audubon are Edward Drinker Cope, Isaac Lea, John Lawrence LeConte, Joseph Leidy, Henry A. Pilsbry, and James Bond.



American Journal of Science

New Haven, Connecticut (vol. 1, 1818–vol. 160, 1900)

The *American Journal of Science* was first edited by Benjamin Silliman, a geologist and chemist at Yale. He stated, "Most of the periodical works of our country have been short-lived—this also may perish in its infancy unless it has intrinsic value as perceived by readers." It went on to become one of the great scientific journals of the world in the 19th century, with its editorship perpetuated through a continuing succession of scientists. The Journal quickly became, and remains, an important source for seminal American scientific papers. Its initial plan of work was to explore "natural history (mineralogy, botany, and zoology), chemistry and natural philosophy, and mathematics, pure and mixed." A very wide net was cast for contributions. Interestingly, the first published article was about music, intervals, harmonics and their mathematical basis, and research into the commonality of chords in written music. Considerable attention was paid in early years and throughout the 19th century to natural phenomena, particularly meteors, meteorites and their composition—in addition to mineralogy, geology, natural history, agriculture, and the "ornamental" as well as the "useful" arts. In addition to Silliman's contributions, this set features articles by Philadelphia's famous botanist and polymath Constantine Samuel Rafinesque and Thomas Say, the father of descriptive entomology in the United States. In the late 19th century, Louis Agassiz's explorations were described, and as telescopes and lenses were developed, their optics became subjects of discussion. Over the years, the journal has continued to publish papers of broad scientific interest, with greater focus on experiments in physical science and worldwide geology.

Boston Journal of Philosophy and the Arts

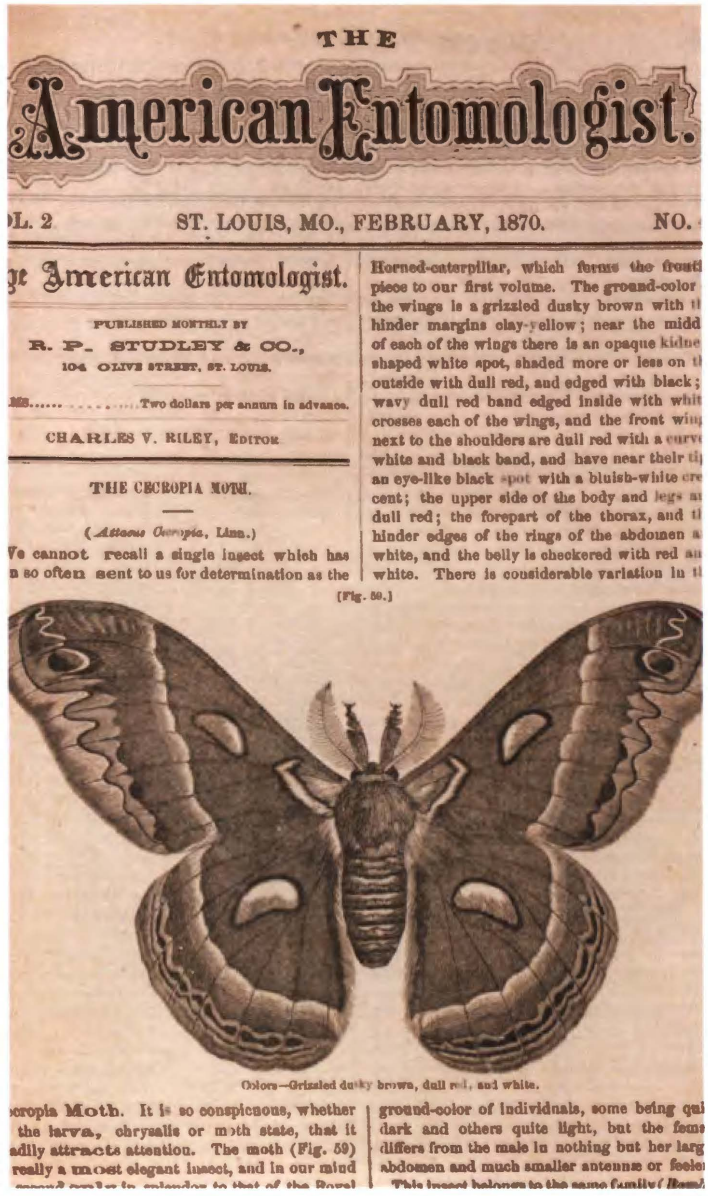
Boston (vol. 1, 1823–vol. 2, 1825)

In this periodical, "The principle object of the editors has been to present in their publications, whatever was useful or interesting among the contents of the European periodical works, either in the language of the authors themselves, or in a more condensed and abridged form in their own." The journal also published original articles relating principally to American science. Early issues included articles about the increasing population of the United States and recent changes in agriculture, commerce, and manufactures. There were specific articles on the Great American Mammoth, steam engines, navigable canals, volcanoes, cast iron, alloys of steel, the content of sea water, and the "sepulchral caverns of Egypt."

Monthly Journal of Medicine

Hartford, Connecticut (vol. 1, 1823–vol. 6, 1825; complete)

Intended for the medical profession, this journal focused on collecting material in European medical journals to be reprinted for use in America. "Whatever is calculated to assist the physician in the discharge of his professional duties—speculations which lead to correct practice and practice recommended by its superior success, will furnish the editors with materials for the construction of this journal." Examples of articles included Jenner on "Artificial Eruptions," and basic topics including epilepsy, "the nerves," yellow fever, putrid [pus-causing] diseases, stroke, puerperal fever, scoliosis, cancers, and surprisingly, a collection of three successful cases of pain treated with acupuncture. The journal also addressed the legal aspects of midwifery [obstetrics]. There is also a section on "statistical medicine"—vital statistics including hospital admissions, diagnosis, and seasonal variation in diagnosis (London). Although most articles were of European origin, there also were excerpts taken from the *New England Journal of Medicine and Surgery*.



THE

American Entomologist.

L. 2 ST. LOUIS, MO., FEBRUARY, 1870. NO.

ge American Entomologist.

PUBLISHED MONTHLY BY

R. P. STUDLEY & CO.,

104 OLIVE STREET, ST. LOUIS.

.....Two dollars per annum in advance.

CHARLES V. RILEY, Editor

THE CECROPIA MOTH.

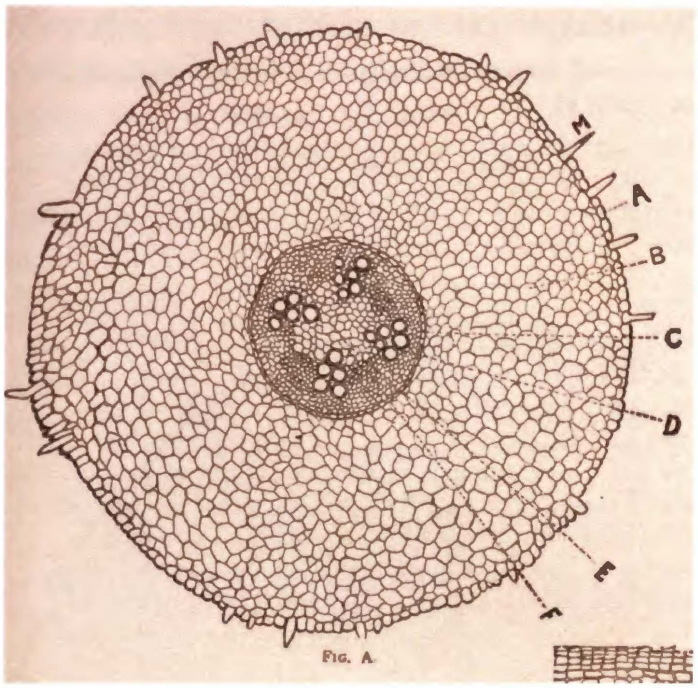
(*Attacus Cecropia*, Linn.)

Ve cannot recall a single insect which has n so often sent to us for determination as the Horned-caterpillar, which forms the frontis piece to our first volume. The ground-color the wings is a grizzled dusky brown with t hinder margins clay-yellow; near the midd of each of the wings there is an opaque kidne shaped white spot, shaded more or less on t outside with dull red, and edged with black; wavy dull red band edged inside with whit crosses each of the wings, and the front win next to the shoulders are dull red with a curv white and black band, and have near their ti an eye-like black spot with a bluish-white cre cent; the upper side of the body and legs a dull red; the forepart of the thorax, and t hinder edges of the rings of the abdomen a white, and the belly is checkered with red an white. There is considerable variation in t

(Fig. 59.)

Colors—Grizzled dusky brown, dull red, and white.

cropia Moth. It is so conspicuous, whether the larva, chrysalis or moth state, that it adily attracts attention. The moth (Fig. 59) really a most elegant insect, and in our mind ground-color of individuals, some being qui dark and others quite light, but the fema differs from the male in nothing but her larg abdomen and much smaller antennæ or feele



Annals of the Lyceum of Natural History of New York

New York (vol. 1, 1823–vol. 6, 1858; 1870; 1873–74)

This publication was devoted to a serious, technical study of seashells, mollusks, fishes, birds, minerals, and other manifestations of natural history. Articles are highly detailed, often with considerable physical and taxonomic descriptions for new discoveries and detailed comparisons with species already known. Each issue contains many articles with extensive references. Very attractive colored stone lithographs of shells, birds, and other subjects adorn the issues.

Franklin Institute Journal

Philadelphia (vol. 1, 1826–vol. 174, 1912)

Founded by Thomas P. Jones in 1826 as the *Franklin Journal and American Mechanic's Magazine*, it became the most important journal devoted to the development of inventive talent in the United States. Its initial purpose was to document scientific, engineering, and technological achievements throughout the nation and to publish descriptions of American patented inventions. Early articles included "boring" for water and minerals, descriptions of various woods, specific gravity, technology, chemistry, and metallurgy (particularly iron and steel). In the last third of the 19th century, content featured Baird on the absorption of gases by water, Cooke on the chemical theory of the voltaic battery, Leeds on ventilation, Owen on terrestrial magnetism, and a piece on the award of the Rumford Medal to Joseph Harrison for his method of constructing steam boilers. By 1912, articles on byproducts in gas manufacture, recent developments of the locomotive, an electro-pneumatic braking system, electrical precipitation of suspended matter, and practical aspects of electrical waves were typical.

Journal of Health

Philadelphia (vol. 1, 1830–vol. 4, 1832)

This journal was "conducted by an association of physicians" for the interest of the public rather than the profession—"Mankind might be saved a large amount of suffering and disease by a suitable knowledge of the natural laws to which the human frame is subjected." It contained articles on the properties of air (heat, cold, dry), electricity, exercise, clothing, and bathing, with the aim being (in part) to modify the influence of climate and localities. Legislation was promoted, both national and corporate, that would favorably influence the health of a whole population. The journal advocated forward-looking approaches to health: it recognized the hazards of tobacco, including snuff; advised against the hazards of "ardent spirits"; supported vaccination against smallpox, including a calculation of the number of lives that could be saved based upon its general use; and the need for pure water. It also looked into "the diseases of artisans" or work-related health conditions from exposure to toxic substances such as mercury and lead, as well as mineral dust exposure by stone cutters and quarrymen that today would be called silicosis. The editors advocated walking as primary exercise among people of all ages but especially among those who are older. Overall, this journal offered advice that was a century and a half ahead of its time and is well worth comparing to similar advice directed at the public today.

Monthly American Journal of Geology and Natural Science

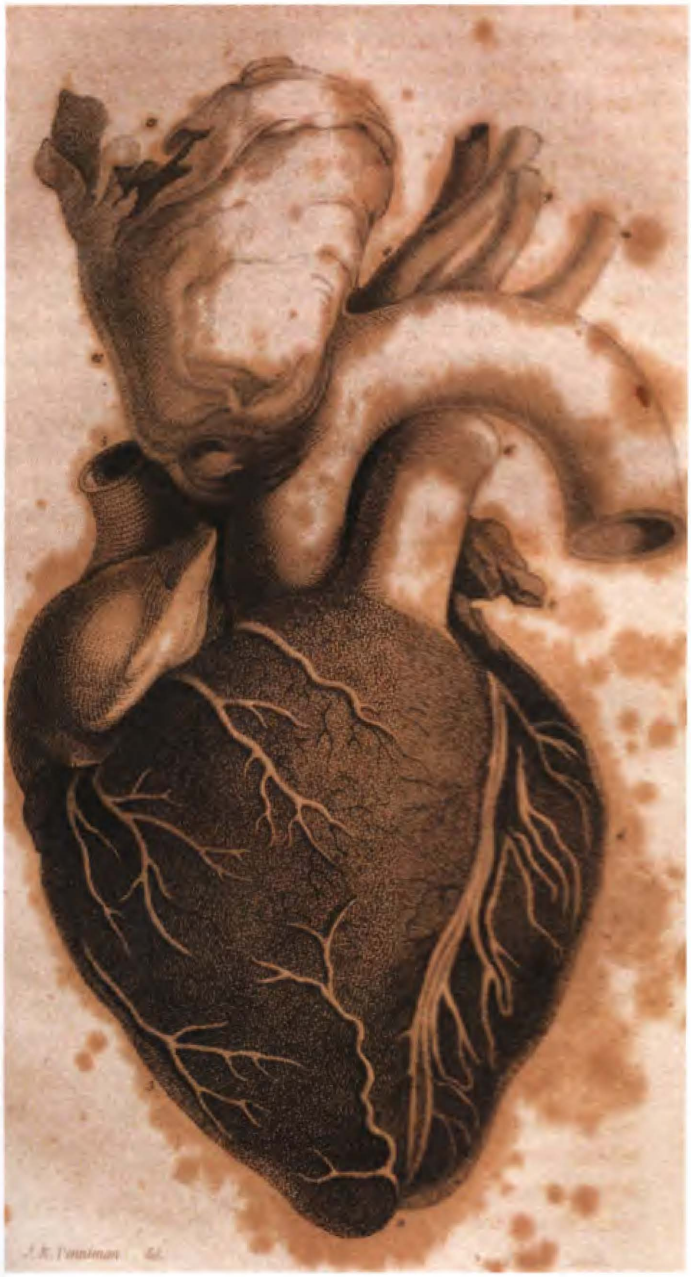
Philadelphia (1831–1832; complete)

This journal was edited by G.W. Featherstonhaugh, a British-American geologist and geographer. American efforts had been laughed at by serious geologists in Europe, and this magazine was established with the goal of putting geology and the study of ancient animal remains on a serious footing in the United States. The editors stated that the magazine would address the "various branches of natural history, zoology, botany, mineralogy, meteorology, and the nature and forces of all physical and natural agents." There was an additional focus on American aboriginal antiquity and ancient languages. The journal addressed the science of ancient things vs. literal Biblical interpretation of creation in the very first issue! Articles include those on "the ancient drainage of North America" by Featherstonhaugh, tours in the caves of Virginia, a new metal provisionally called vanadium, meteorological observations, and using anthracite coal to generate steam. The volume includes excellent lithographs of a bat and the natural bridge in Virginia. In the "Letter to the Editor" section, there is one from John James Audubon, who was at that time in East Florida, that was accompanied by a biography. A list of new books, including American editions of English works, was provided in each issue.

Medical Magazine

Boston (vol. 1, 1832–vol. 3, 1835; complete)

This magazine focused on a professional audience. Articles include case reports from Massachusetts General Hospital with postmortem exams, original articles such as one on the diseases of the eye, trephining [boring therapeutic holes into the skull], smallpox, and spontaneous human combustion. There also are reports on epidemiology, prevalence, and mortality from infectious diseases and articles reprinted from English journals. The journal was not solely allopathic (i.e., focused on mainstream medicine), with articles on homeopathy as promulgated by its founding father Samuel Hahnemann (1755–1843) 25 years earlier. It also had an article by George Combe (1788–1858), an early advocate of phrenology, on "the constitution of man." There is a fascinating report on the newly described method of "auscultation" [listening to the heart] by use of a stethoscope, about which the author is somewhat skeptical.



Boston Journal of Natural History

Boston (vol. 1, 1834–vol. 7, 1863; also 1880, anniversary issue)

This scholarly journal published by the Boston Society of Natural History contained papers and communications read before them. Contributors included Charles T. Jackson and Augustus A. Gould. Each volume featured excellent lithographic illustrations and maps. It published an early disclaimer: "The society does not hold itself responsible for any opinions or facts which the Journal may contain. These must depend on their own merits, and in case they are called into question, their defence will be left to their authors." Articles include "Defence of the author of 'Birds in America' " by John Bachmann; plants around Wilmington, North Carolina; and North American coleopterous insects (beetles). The 50th anniversary was marked with a separate volume that included a historical sketch of the organization and selected papers and engravings. One notable article was on the Limulus (horseshoe crab), illustrated with a portfolio of lithographs.

The American Repertory of Arts, Sciences, and Manufactures

New York (vol. 1, 1840–vol. 4, 1842; complete)

This publication was directed at the worker, artisan, etc. "[who goes] through his daily tasks in their monotonous succession, without a wish to ascertain the grounds and effect of that on which he is employed." The magazine includes transactions of the General Society of Mechanics and Tradesmen of New York, geology of the state of New York, articles on steam and its applications, descriptions of various patents, agricultural geology, and iron-built and timber-built ships. Of particular note is a lengthy contemporary article on the daguerreotype, with instructions on how to make and process images by using the technique.

Proceedings of the Boston Society of Natural History

Boston (vol. 1, 1841–vol. 42, 1942)

Early issues are organized much like meeting notes, with summaries of scientific presentations before the group, subsequent additions and corrections, meeting minutes, and summaries of important publications in other venues. Record was made of newly donated specimens and correspondence and original communications transmitting new observations or experiments. In later years, meeting minutes and other transactional information were dropped in favor of a smaller number of lengthy contributions of a more scholarly, even esoteric, nature with lengthy reference lists. Representative topics include "The rare and little known fishes of Cuba," "The study of the Red Crossbill," and "Bucknell's Thrush." Photos and diagrams relative to the text also were added.

Boston Guide to Health

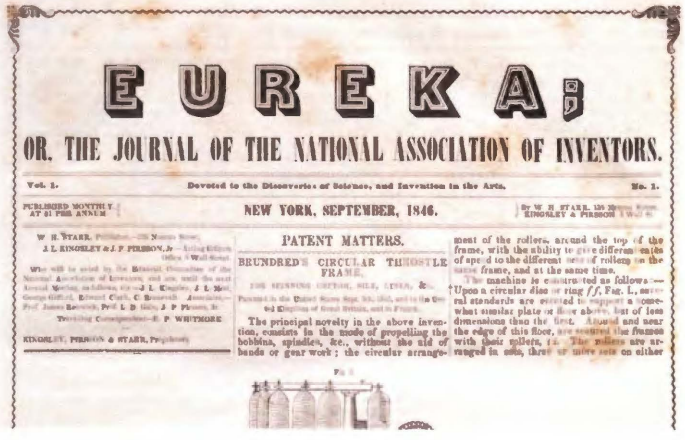
Boston (1843–1844; issues lacking)

This periodical, written for the general public, also billed itself as a "journal of useful knowledge." Medical articles included accounts of the use of magnetism to treat patients (reprinted from a phrenology journal), the use and dangers of mercury in the treatment of yellow fever, and a comprehensive article on consumption (tuberculosis). The magazine also explored agricultural topics and recipes and even printed accounts of an earthquake in Guadeloupe and of panthers in Mississippi.

Eureka; the Journal of National Association of Inventors

New York (1846–1848)

The magazine published vignettes of early inventors and their inventions as well as recent inventions and improvements, with diagrams. Inventions ranged from devices and methods used in everything from vinegar making to hydrographic surveying. Most interesting was a patent for the use of metallic and carbon filaments to obtain light by electricity. The diagrams are obvious precursors of Edison's light bulb, but the patents were not Edison's. Each issue contains letters to the editor with replies to questions as well as summaries of meetings held by groups that discussed inventions and patents.



EUREKA;

OR, THE JOURNAL OF THE NATIONAL ASSOCIATION OF INVENTORS.

Vol. 1. Devoted to the Discoveries of Science, and Invention in the Arts. No. 1.

NEW YORK, SEPTEMBER, 1846.

PATENT MATTERS.

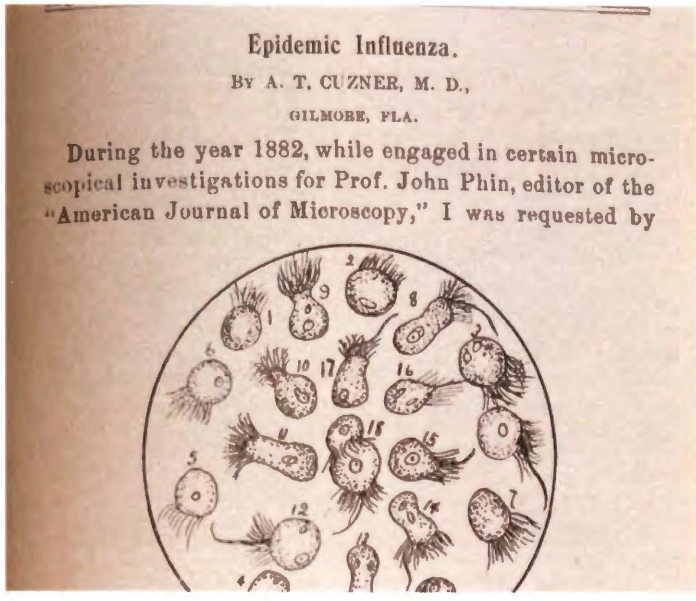
BRUNDRED'S CIRCULAR THROSTLE FRAME.

The principal novelty in the above invention, consists in the mode of propelling the bobbins, spindles, &c., without the aid of bands or gear work; the circular arrangement of the rollers, around the top of the frame, with the ability to give different rates of speed to the different sets of rollers on the same frame, and at the same time.

Scientific American

New York v.2 (1846) – v.14 (1859); n.s. v.1 (1859) – v.71 (1894); v.82 (1900) – v.163 (1940). V. 164 to present available in main stacks.

Scientific American was founded by the American painter and inventor Rufus M. Porter in 1845 as a four-page weekly newspaper published in four columns and, in its early years, was dedicated primarily to invention and practical technology. That said, the journal published a surprising array of short pieces on religion, such as "God is Love" and "A Mother's Grave" as well as international news, humor and poetry. There is considerable material on early railroads, manufacture of leather and steel, new buildings and terrible shipwrecks, as well as a prototype of an early rotary multi-color printing press. An interesting article from the 1840s demonstrated that the filtration system of the Croton water supply in New York was able to remove the diverse microscopic "animalculae" thirty years before the germ theory of disease was defined. A list of new patents was published in each issue, along with longer articles on particularly interesting devices and processes. The advertisements are particularly interesting. By the 20th century, the magazine was published monthly with photographs included in the text. There is much on new technology, and given the tenor of those times, the technological advances of war. An article in 1940 asks "Is Atomic Energy Nearer?" and describes the isolation of a minute amount of radioactive Uranium 235. It describes the possibility of nuclear fission, but opines that it will not be possible until far into the future. [The first sustained nuclear reaction occurred just 2 years later; the atom bomb 5.] Other articles focused on the then brand-new electron microscope and immense new radiologic machines. Regular monthly columns included "Telescoptics" especially of interest to readers who built and used telescopes, and "Camera Angles" with many ads for photographic equipment and supplies. *Scientific American* is one of the handful of important magazines that have continued to publish since the early-mid 19th century, and over its many years reflects the sense of historic discovery as well as the detours, foibles and blind alleys of science.



Epidemic Influenza.

By A. T. CUZNER, M. D.,

GILMORE, FLA.

During the year 1882, while engaged in certain microscopical investigations for Prof. John Phin, editor of the "American Journal of Microscopy," I was requested by

Annual of Scientific Discovery

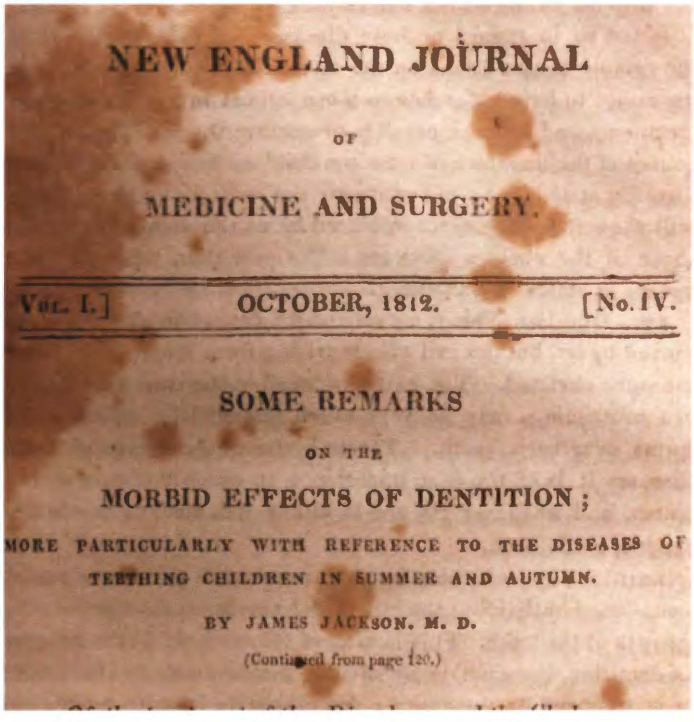
Cambridge, Massachusetts (1850–1871)

The yearbook summarizes the "most important discoveries and improvements" in astronomy, mineralogy, geology, meteorology, zoology, botany, mechanics, useful arts, etc. and offers "a complete and condensed view of the progress and discovery in every branch of science and art." This was a relatively early attempt to bring together summaries of important articles from diverse publications, especially those from less available European publications written in foreign languages. Louis Agassiz and other Harvard faculty were featured as contributors to and supporters of the journal. There is much material on mechanics and the useful arts, especially a trove of mid-19th-century inventions such as improvements in steam boilers and navigation, sheet and cast iron, envelope making, and Hoe's printing press. It also describes experiments in electricity and magnetism, ocean currents, chemistry, and nutritional constituents as well as articles about geysers in Iceland and ice caves in Russia. It is an excellent series to appreciate what was deemed scientifically important for the educated general reader in the middle of the 19th century.

American Polytechnic Journal

Washington, D.C. (1853–1854; complete)

This journal was "devoted to science, mechanic arts, and agriculture" including physical and chemical science and electromechanics. It paid particular attention to patents and the legal matters surrounding them, both in the United States and abroad. The magazine published patent office reports and new patents with diagrams. Improvements in making sugar, grape growing, cheese making, raising Merino sheep, woodworking, guano, chemical processes, and improvements in propelling vessels were detailed.



NEW ENGLAND JOURNAL

OF

MEDICINE AND SURGERY.

VOL. I.] OCTOBER, 1812. [No. IV.

SOME REMARKS

ON THE

MORBID EFFECTS OF DENTITION;

MORE PARTICULARLY WITH REFERENCE TO THE DISEASES OF TEETHING CHILDREN IN SUMMER AND AUTUMN.

BY JAMES JACKSON, M. D.

(Continued from page 120.)

The Inventor

New York (1855–1857; complete)

This periodical contains information regarding new patents, and data and transactions from the U.S. patent office. Descriptions of new inventions with illustrations and manufacturing processes were included in each issue. The legal aspects of patents were discussed, including relevant laws. In one particularly interesting entry regarding "steam carriages for common roads," the editors commented, "We are not prepared to say that this method of transportation will ever become general, yet we do not see why it may not to a certain extent be used on level hard roads." The magazine presented designs for rural residences with floor plans as well as articles about cast-iron buildings replacing stone. There are fascinating lists and descriptions of 19th-century inventions, some that proved to be significant, others not.

Retrospect of Practical Medicine and Surgery

New York (1860–1868; various)

"A half-yearly journal containing a retrospective view of every discovery and practical improvement in the medical sciences," this is the "Uniform American Edition" with an English editor and both English and American contributors. The journal is composed of medical, surgical, and gynecologic disease-specific articles, including treatment. There also are brief reports, and the magazine provides a very good overview of contemporary medical and surgical practice in the mid-19th century.

Hall's Journal of Health

New York (vol. 9, 1862–vol. 24, 1877; issues lacking)

This magazine, produced for the public, promoted health based upon the strong beliefs of the editor, Dr. William Hall. Some of his beliefs have proved completely wrong, others prescient. The structure was based upon various "health tracts," or brief summaries of advice regarding particular conditions or their prevention and good health in general. Hundreds of these tracts were published over the life of the journal. There are many rules and aphorisms, some of which are counter-intuitive —how to cure a cold (restrict fluids), hints for the traveling season, winter rules, the best hair wash, regulating the bowels, etc. "Fifteen Follies" ran the gamut and included some things we perhaps should consider today. One article advocates for more free exercise for children in their early years, and another promotes the idea of moderation and that too much of a good thing can lead to untoward consequences.

American Entomologist

New York (vol. 1, 1868–vol. 3, 1880; complete)

This pioneering journal of primarily economic entomology and botany was edited by a pair of British-born eminent authorities, Benjamin Walsh, the state entomologist of Illinois (who began his entomological career at the age of 50!) and Charles V. Riley, later organizer of the entomological division of the Department of Agriculture and curator of the national insect collection. The journal was meant to be "an illustrated [monthly] magazine of popular and practical entomology." The illustrations were a combination of stone, multicolored lithographs and drawings as part of the text. Particular attention was paid to insects harmful to crops and plants, 17-year locusts (cicadas), bees, grasshoppers, weevils, and beetles. More distant correspondents contributed reports from the field, and readers contributed their own observations. The magazine was an early proponent of "natural" ways to combat pests and also published articles about insect predators of humans, such as the head and body louse, chiggers, etc.

THE AMERICAN ENTOMOLOGIST.

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THE TARANTULA OF TEXAS.

(*Mygale Hentzii*, Girard).

[Fig. 91.]

Color—Brown.

black, while the wings are
f a bright brown, with black
tips. It is armed with a formi-
which it invariably uses in tak-
* * * It takes its prey by
s instantly paralyzing every limb
. The effect of the introduc-
nom is as sudden as the snap of
spark. The wasp then drags it,
ards, to some suitable place, exca-
ive inches deep in the earth, places
er in it, deposits an egg under one
ar the body, and then covers the
urely. A young Tarantula Killer
ced from this egg, if no accident
ut the first of June of the ensuing

ntula Killers have severe fights
er. It occasionally happens, when

scent like a dog, tr
the Tarantula, fol
ing it up closely,
makes a violent e
to get possessio
the paralyzed sp
A fight ensues, w
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ates in the deat
both parties; at
times the contest
but a little whil
the stronger
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and takes posse
of the prey.

"It is surprisi
one who has
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to secure their
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of their own t
ing sisters, an
hide the food
have provided for their young during the p
of its existence under ground."

THE MELANCHOLY CHAFER.

In number 2, page 32, we stated on the e
lent authority of Mr. Parker Earle, that the
ancholy Chafer (Fig. 92) eats into the blosson
of pears and causes a clammy
dation therefrom. Mr. Glover
ago found these very same insec
cotton-bolls inside the holes pl
by the boll worm, and in on
stance as many as five in a si
boll. (*Patent Office Report*,
p. 61). They appear, he say
frequent such places merely for the sake o
extravasated sap. If this opinion be corre

[Fig. 92.]

Colors—Black-brown and whitish.

THE ROYAL HORNED CATERPILLAR.

The Sanitarian

New York (vol. 1, 1873–vol. 52, 1904)

This monthly journal focused primarily (but not exclusively) on New York and was devoted to public health during its early period as a discrete discipline. The magazine grappled with basic issues (some of which are again contentious), such as the need for a U.S. government bureau of sanitary health, the need for a rigorous system of quarantine during disease outbreaks (including a large, foldout map of the New York City area), and the health and education of children. Also, there is considerable focus on the drainage issue in New York City, with foldout maps of underground rivers, streams, and swamps in Manhattan. There are reports from meetings of the American Public Health Association, book reviews, and epidemiologic data and vital statistics from cities around the United States, particularly focused on infectious diseases such as diphtheria, croup, typhoid fever, smallpox, and scarlet fever. By 1904, the journal still had the same editor, but its focus had changed. Vital statistics now included enumeration of deaths by accident (streetcars were the largest cause) and mortality by diagnosis. Frequent theater fires were an issue. The journal supported the need for routine food inspection and the aggressive prevention of epidemic diseases. In words that still seem quite relevant, "One of the enigmas of our modern civilization, which possibly may be attributed to the resentment arising from a supposed trammeling of personal rights and liberties," was the opposition to implementing population-based mandates regarding individual health care to prevent death and improve the health of the community as a whole.

American Association for the Advancement of Science [Proceedings]

Philadelphia (1875)

The Proceedings includes the minutes of the annual meeting held in Detroit, as well as a list of officers and speeches. It also includes papers read in math, physics, chemistry, astronomy, and natural history, including fossils and Midwestern mounds.

Annals of the New York Academy of Sciences

New York (vol. 1, 1877–vol. 29, 1924; issues lacking)

This publication was the successor to the *Annals of the Lyceum of Natural History* when the Lyceum's name changed to the New York Academy of Sciences. Examples of articles in the new publication include the application of organic acids to the study of minerals, prehistoric Japanese bells, new species of birds in Dominica, a comprehensive index of the literature on titanium, freshwater fishes of the United States, newly discovered U.S. fossils, and ozone and the atmosphere; each article is accompanied by one or more illustrations.

The Locomotive

Hartford, Connecticut (vol. 1, 1880–vol. 65, 1987)

This magazine, published by the Hartford Steam Boiler Insurance Company, is concerned primarily with steam boilers, their construction, and their failures. It includes vivid descriptions of their explosions, of which there were many in the 19th and early 20th centuries, particularly in locomotives and mills. The journal published annual data including types of explosions and the number of persons killed and injured. It also describes the types of injuries and burns that occurred. This periodical is an example of a relatively early organized approach to industrial safety and risk reduction. The authors made the case that as boilers age, they weakened and required regular inspection and repair before accidents occurred. As they noted, "We are assured that there are some things that improve with age. Steam boilers are not of that number."

Drugs and Medicines of North America: A Quarterly

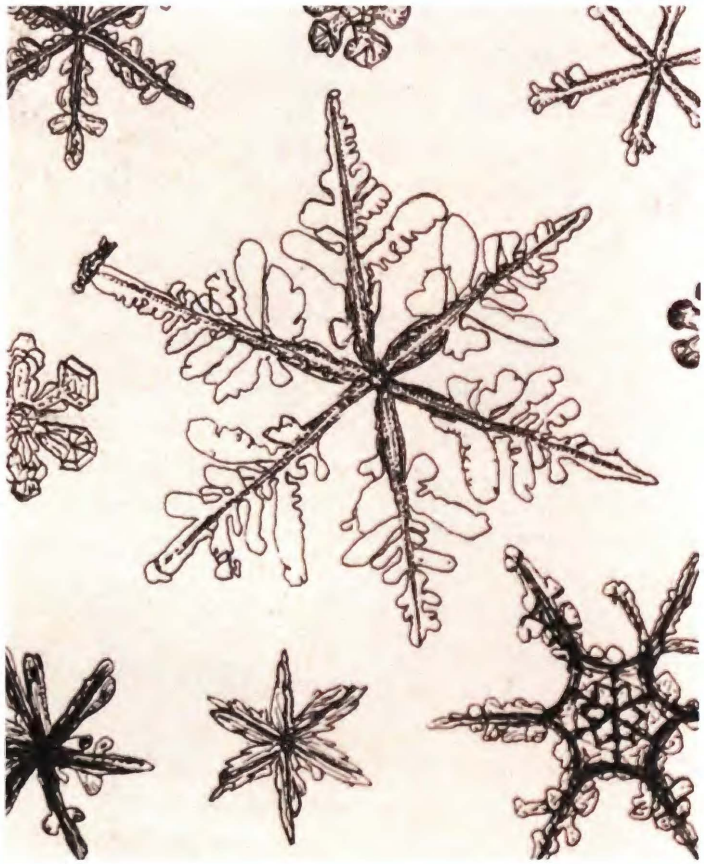
Cincinnati (vol. 1, 1884–vol. 2, 1887; complete)

"Devoted to the Historical and Scientific Discussion of the Botany, Pharmacy, Chemistry, and therapeutics of the medicinal plants of North America—their constituents, products and sophistications," this publication was like an herbal, using genus and species as the organizing principle. There is in-depth information regarding the medical uses for each plant, including the method of action, clinical indications, and the method of preparation for clinical use. The magazine includes many illustrations, both gross and microscopic views. Unfortunately, this highly professional publication had a rather short lifespan. After volume 2, number 5, the plan was to cease publication as a periodical and switch to a published book in the future. Unfortunately, that transition never occurred.

Meriden Scientific Association Transactions

Meriden, Connecticut (vol. 1, 1885–vol. 8, 1898)

This magazine was typical of a host of publications printed by local medical societies and scientific associations in the second half of the 19th century. Articles include a biography of James G. Percival, M.D., "Sewage: Its Carriage and Disposition," "The Topographical Survey of Connecticut," "Some Geological Features of Meriden," "Cycadinocarpus Chapinii," and "The Pre-Columbian Discovery of America by the Northmen."



Microscopical Bulletin and Science News

Philadelphia (vol. 2, 1885–vol. 18, 1901)

"Probably few subjects have advanced so rapidly as that of bacteriology. ... Ten years ago we had scarcely heard of it, today many of the first universities of Europe have established chairs devoted to the subject. ... It has revolutionized some of the departments of medicine and surgery, is a constant theme in sanitary science, and has become an important factor in the daily life of every individual." The magazine contains notices of society meetings, brief reviews of new works, reader comments, and articles on everything related to the use of the microscope—such as optics (lenses, prisms, refraction), observations (diatoms, infusoria, blood of various animals), practical techniques in mounting specimens, stains, and contemporary observations on bacteriology as they unfolded over the years.

Pittonia

Berkeley, California (vol. 1, 1887–vol. 2, 1892)

This series of papers relating to botany and botanists included new species and descriptions of old ones. There is considerable focus on the botany of specific regions and locations as well as reviews of other botanical literature. It also put botanical descriptions in historical context. Examples of article titles include "Echinocystis and Megarrhiza," "West American Species of Trifolium," "A New Genus of Asteroid Compositae," "Botanical Excursion to the Island of San Miguel with Catalogue of the Flowering Plants of the Island," "New or Noteworthy Species," "New Species from Mexico," "Botany of Cedros Island," and "Plants from the Bay of San Bartolome."

The Observer

Portland, Connecticut (vol. 1, 1890–vol. 8, 1897; complete)

This large-format, illustrated journal was aimed at a general audience and focused on natural history, popular science, education, and general literature. It typically published a featured article as well as many smaller ones that touched on a wide variety of subjects in each issue, typically including zoology, botany, meteorology, astronomy, and microscopy. The study of wind by use of the anemometer, electricity, New England birds, positions of the planets, and of various animals are among the wide variety of topics. The advertisements, many of which are for microscopes and books, are particularly interesting. This publication would have had particular appeal for the curious high school student or armchair intellectual.

The Microscope

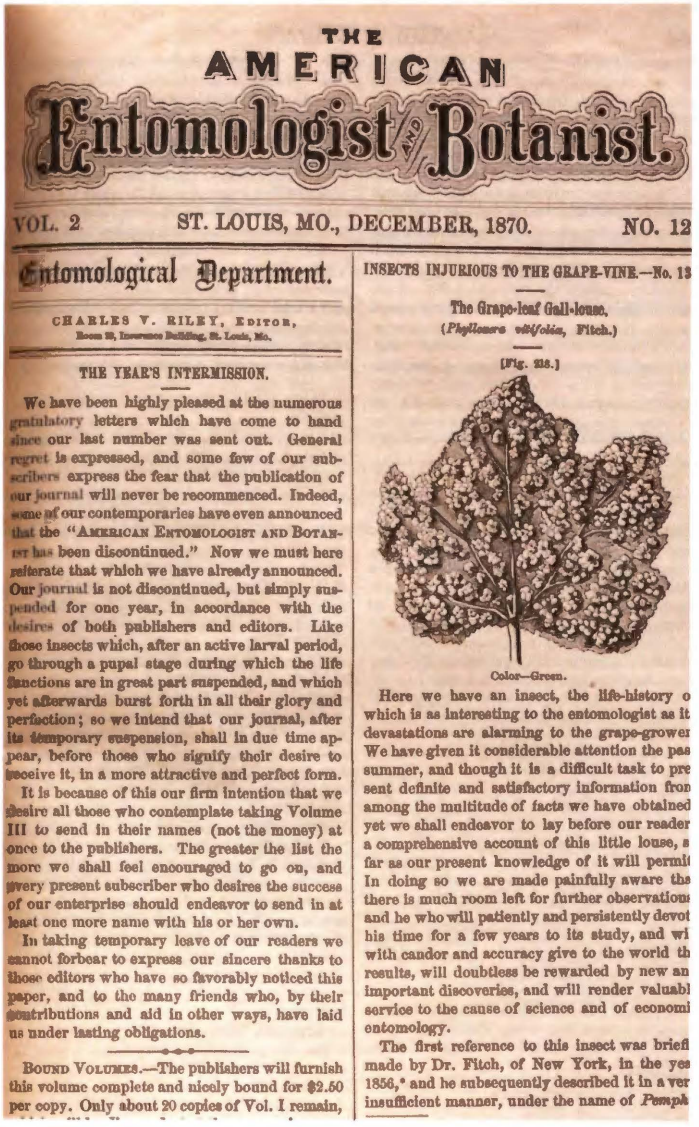
Trenton, New Jersey (1892–1897; issues lacking)

This illustrated monthly magazine focused on the use and utility of microscopy. It discussed techniques such as the preparation and staining of specimens for microscopic examination, the physics of microscope lenses, and photomicrography and its practical application in clinical medicine and public health (i.e., examining a water supply). Book reviews and correspondence from readers give a good sense of how and by whom microscopes were being used at the end of the 19th century.

Asa Gray Bulletin

Washington, D.C. (1898–1899)

Named after the most important American botanist of the 19th century, this magazine was devoted to the study and teaching of botany. Particular areas of focus included edible plants and fungi (including puffballs), plant physiology, and classification. The publication includes plates, diagrams and photographs. It also published notes of meetings of organizations devoted to botany.



THE AMERICAN
Entomologist and Botanist.

VOL. 2 ST. LOUIS, MO., DECEMBER, 1870. NO. 12

Entomological Department.

CHARLES V. RILEY, EDITOR,
Room 19, Insurance Building, St. Louis, Mo.

THE YEAR'S INTERMISSION.

We have been highly pleased at the numerous gratulatory letters which have come to hand since our last number was sent out. General regret is expressed, and some few of our subscribers express the fear that the publication of our journal will never be recommenced. Indeed, some of our contemporaries have even announced that the "AMERICAN ENTOMOLOGIST AND BOTANIST has been discontinued." Now we must here reiterate that which we have already announced. Our journal is not discontinued, but simply suspended for one year, in accordance with the desires of both publishers and editors. Like those insects which, after an active larval period, go through a pupal stage during which the life functions are in great part suspended, and which yet afterwards burst forth in all their glory and perfection; so we intend that our journal, after its temporary suspension, shall in due time appear, before those who signify their desire to receive it, in a more attractive and perfect form.

It is because of this our firm intention that we desire all those who contemplate taking Volume III to send in their names (not the money) at once to the publishers. The greater the list the more we shall feel encouraged to go on, and every present subscriber who desires the success of our enterprise should endeavor to send in at least one more name with his or her own.

In taking temporary leave of our readers we cannot forbear to express our sincere thanks to those editors who have so favorably noticed this paper, and to the many friends who, by their contributions and aid in other ways, have laid us under lasting obligations.

BOUND VOLUMES.—The publishers will furnish this volume complete and nicely bound for $2.50 per copy. Only about 20 copies of Vol. I remain,

INSECTS INJURIOUS TO THE GRAPE-VINE.—No. 13

The Grape-leaf Gall-louse.
(*Phylloxera vitifolia*, Fitch.)

[Fig. 28.]

Color—Green.

Here we have an insect, the life-history o which is as interesting to the entomologist as it devastations are alarming to the grape-grower We have given it considerable attention the pas summer, and though it is a difficult task to pre sent definite and satisfactory information fron among the multitude of facts we have obtained yet we shall endeavor to lay before our reader a comprehensive account of this little louse, a far as our present knowledge of it will permit In doing so we are made painfully aware tha there is much room left for further observation and he who will patiently and persistently devot his time for a few years to its study, and wi with candor and accuracy give to the world th results, will doubtless be rewarded by new an important discoveries, and will render valuabl service to the cause of science and of economi entomology.

The first reference to this insect was briefl made by Dr. Fitch, of New York, in the yea 1856,* and he subsequently described it in a ver insufficient manner, under the name of *Pemph*

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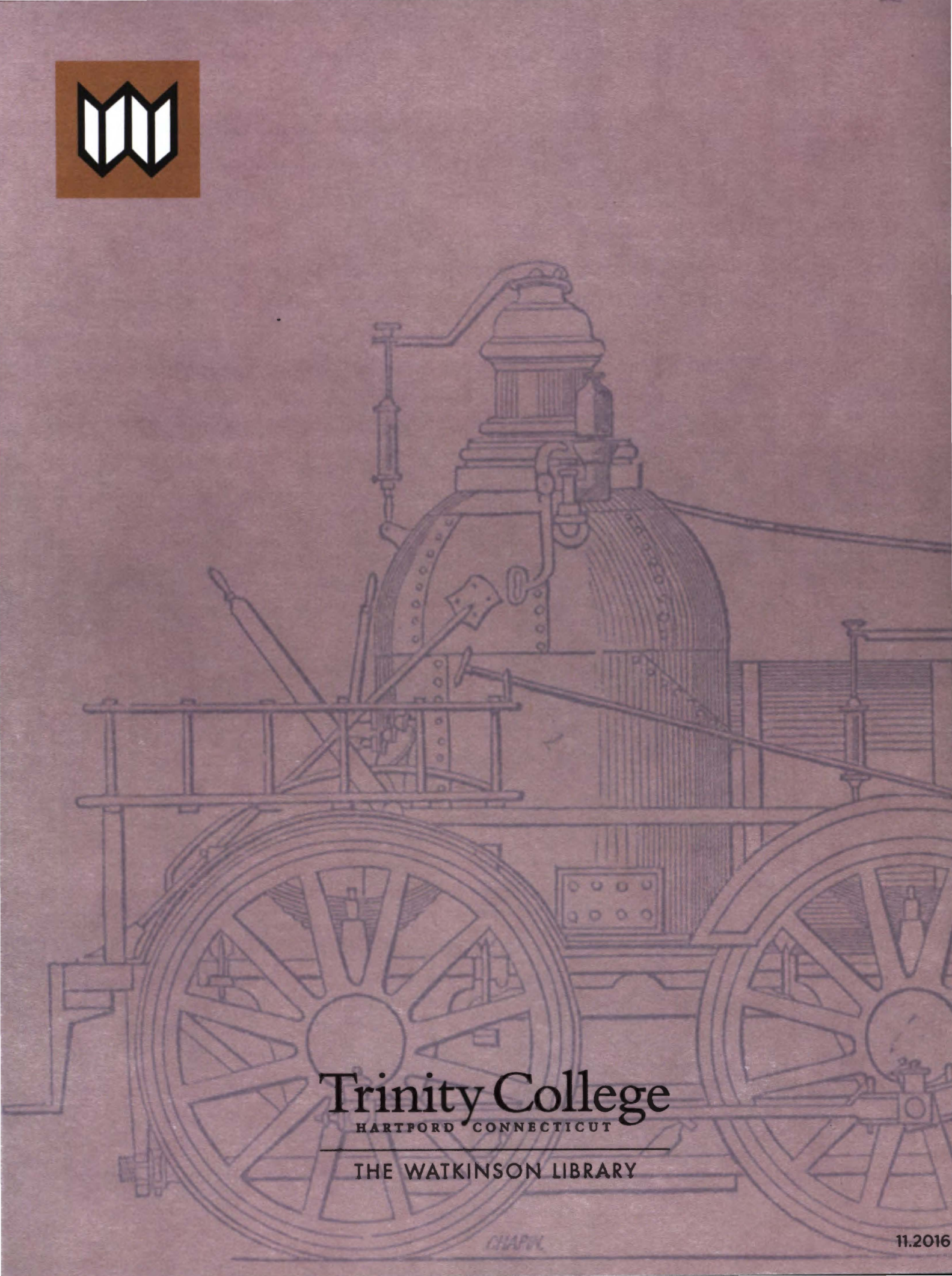

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